THE INVENTION CLAIMED IS:

1. A substrate positioning system adapted to adjust a position of an edge of a substrate relative to a stage that supports the substrate, comprising:

a plurality of pushing devices and stops arranged in a spaced relation around a stage that is adapted to support a substrate, wherein each stop occupies a fixed position relative to the stage and each pushing device comprises a movable pusher that is adapted to:

extend toward an edge of the substrate that is supported by the stage;

contact the edge of the substrate while the substrate is supported by the stage; and

continue extending so as to cause the substrate to translate relative to the stage toward one or more of the stops until the substrate contacts the one or more stops.

2. The substrate positioning system of claim 1, wherein each pushing device is adapted to:

cause the pusher of the pushing device to extend toward the edge of the substrate that is supported by the stage;

cause the pusher of the pushing device to contact the edge of the substrate while the substrate is supported by the stage; and

cause the pusher of the pushing device to continue extending so as to cause the substrate to translate relative to the stage toward one or more of the stops until the substrate contacts the one or more stops.

3. The substrate positioning system of claim 2 wherein:

the pusher of each pushing device is further adapted to retract from the edge of the substrate; and

each pushing device is further adapted to cause the pusher of the pushing device to retract from the edge of the substrate.

4. The substrate positioning system of claim 1 further comprising a controller coupled to each pushing device, and adapted to:

cause the pusher of each pushing device to extend toward the edge of the substrate that is supported by the stage;

cause the pusher of each pushing device to contact the edge of the substrate while the substrate is supported by the stage; and

cause the pusher of each pushing device to continue extending so as to cause the substrate to translate relative to the stage toward one or more of the stops until the substrate contacts the one or more stops.

5. The substrate positioning system of claim 1, wherein each pusher is further adapted to extend toward the edge of the substrate along a straight-line path.

6. The substrate positioning system of claim 5, wherein the plurality of pushing devices reside in a common plane containing the straight-line paths of the pushers.

7. The substrate positioning system of claim 6, wherein the plurality of pushing devices include a first pushing device oriented such that the pusher of the first pushing device extends in a first direction, and a second pushing device oriented such that the pusher of the second pushing device extends in a second direction substantially perpendicular to the first direction.

8. The substrate positioning system of claim 1, wherein each pushing device further comprises a biasing device coupled to the pusher of the pushing device and adapted to move the pusher toward the edge of the substrate.

9. The substrate positioning system of claim 8, wherein the biasing device comprises a spring.

10. The substrate positioning system of claim 8, wherein each pushing device further comprises a retracting device coupled to the pusher of the pushing device and adapted to counteract the biasing device so as to move the pusher away from the edge of the substrate.

11. A pushing device, comprising:

a pusher adapted to:

extend toward an edge of a substrate that is supported by a stage;

contact the edge of the substrate while the substrate is supported by the stage; and

continue extending so as to cause the substrate to translate relative to the stage toward one or more stops until the substrate contacts the one or more stops.

12. The pushing device of claim 11 further comprising:

a biasing device adapted to apply a biasing force to the pusher; and

a bias-defeating device adapted to apply a retracting force to the pusher so as to counteract the biasing force of the biasing device.

13. The pushing device of claim 12 further comprising a common frame coupled to the biasing device and the bias-defeating device.

14. The pushing device of claim 13 wherein the common frame is adapted to restrict motion of the pusher so as to prevent impact between the pusher and the stage.

15. The pushing device of claim 12 further comprising a pusher support coupled to the pusher.

16. The pushing device of claim 15 further comprising a guideshaft adapted to support and guide the pusher support.

17. The pushing device of claim 16 further comprising a sensor adapted to generate a signal corresponding to at least one of a speed of rotation of the guideshaft and a rotational position of the guideshaft.

18. The pushing device of claim 17 further comprising a controller adapted to:

receive the signal from the sensor; and

determine a position of the pusher relative to the stage based on the signal.

19. A stopping device, comprising:

a stop adapted to prevent a substrate from moving relative to a support stage; and

a stopping device coupled to the stop, and adapted to brace the stop against pushing forces exerted against an edge of the substrate so as to substantially prevent movement of the stop in response to the pushing forces.

20. The stopping device of claim 19 wherein the stopping device is further adapted to:

situate the stop at an elevation of an edge of a substrate; and

brace the stop so that the stop maintains a predefined x-y position relative to the stage.

21. A method of adjusting a position of a substrate relative to a stage that supports the substrate, comprising:

providing a plurality of pushers and stops in a spaced relation around a stage that is adapted to support a substrate;

causing each pusher to extend toward an edge of the substrate;

causing each pusher to contact the edge of the substrate; and

causing each pusher to continue extending so as to cause the substrate to translate relative to the stage toward one or more of the stops until the substrate contacts the one or more stops.

22. The method of claim 21 wherein causing each pusher to extend toward an edge of the substrate includes causing a biasing force applied to each pusher to dominate a retracting force applied to each pusher.

23. The method of claim 21 wherein causing each pusher to continue extending so as to cause the substrate to translate relative to the stage toward one or more of the stops until the substrate contacts the one or more stops includes causing the position of the substrate relative to the stage to be calibrated to an x-y coordinate system of the stage.

24. The method of claim 21 further comprising causing one or more of the plurality of pushers to retract.

25. The method of claim 21 further comprising loading a substrate on the support.

26. The method of claim 25 wherein the substrate is misaligned with the stage.

27. The method of claim 26 further comprising:

permitting sliding communication between each pusher and the edge of the substrate; and

permitting sliding communication between each stop and the edge of the substrate.

28. A computer program product comprising:

a medium readable by a computer, the computer readable medium having computer program code adapted to:

cause a plurality of pushers to extend toward an edge of a substrate, wherein the plurality of pushers and a plurality of stops are provided in a spaced relation around a stage that is adapted to support the substrate;

cause each pusher to extend toward the edge of the substrate;

cause each pusher to contact the edge of the substrate; and

cause each pusher to continue extending so as to cause the substrate to translate relative to the stage toward one or more of the stops until the substrate contacts the one or more stops.

29. The computer program product of claim 28 wherein the computer program code is further adapted to cause a biasing force applied to each pusher to dominate a

retracting force applied to each pusher by reducing the retracting force.

30. The computer program product of claim 29 wherein the computer program code is further adapted to cause the position of the substrate relative to the stage to become calibrated to an x-y coordinate system of the stage.

31. The computer program product of claim 29 wherein the computer program code is further adapted to cause one or more of the plurality of pushers to retract by increasing the retracting force.